

QUARTERLY REPORT
CONCERNING
MTBE USE IN
CALIFORNIA GASOLINE

January 1 through March 31, 2003

Report to the Legislature

STAFF REPORT

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Gray Davis, Governor

CALIFORNIA ENERGY COMMISSION

Michael Nyberg

Jeff Poteet

Principal Authors

Daryl Metz

Project Manager

Leigh Stamets

Supervisor

**Transportation Fuel Supply
and Demand Office**

Scott W. Matthews

Deputy Director

Transportation Energy Division

Robert L. Therkelsen

Executive Director

Quarterly Report Concerning MTBE Use in California Gasoline

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Background

Senate Bill 1001 (Burton), Chapter 814, Statutes of 1999, requires the California Energy Commission to prepare a quarterly report on the amount of methyl tertiary butyl ether (MTBE) used in California gasoline. This report summarizes the amount of MTBE each California refinery used during the preceding quarter — January 1 through March 31, 2003.

The amount of MTBE reported in this document is the quantity blended at each refinery location for use in the production of California Reformulated Gasoline (CaRFG) and intended for sale in the state. The numbers do not include any MTBE used at California refineries for the production of any type of gasoline intended for sale outside the state. In addition, several small refineries operating in the state are not included in this report because they do not produce gasoline.

MTBE, a compound containing oxygen, is an oxygenate used to produce gasoline in California. California refiners also use two other oxygenates, ethanol and tertiary amyl methyl ether. Federal law requires California refiners to use a minimum amount of oxygen in all reformulated gasoline sold in severe and extreme ozone-nonattainment regions of the state. Those areas in California (mostly in Southern California, the Sacramento Metropolitan Area, and the San Joaquin Valley) account for over 80 percent of the gasoline used in the state (as of December 2002).

On March 15, 2002, Governor Gray Davis issued Executive Order D-52-02. The Order, in effect, requires California refineries to complete the phase-out of MTBE gasoline by no later than December 31, 2003.

First Quarter 2003 Results

The average concentration of MTBE decreased sharply in the first quarter of 2003 because of the voluntary early transition to the use of ethanol in place of MTBE by the majority of refiners in California. California refiners used almost 3 million barrels of MTBE to make CaRFG during the first quarter of 2003. This amount represents approximately 33,000 barrels or 1.4 million gallons¹ of MTBE per day. Table 1 shows the use of MTBE by each refinery in California and total CaRFG production. The total volume of MTBE used by California's refiners decreased by 63 percent compared to the fourth quarter of 2002. Over the same period, CaRFG production declined 3.8 percent. The 63 percent decline in the

use of MTBE and the 3.8 percent drop in gasoline production resulted in the average concentration of MTBE falling to 3.6 percent in the first quarter of 2003.

Figure 1 illustrates the average quarterly concentration of MTBE used in California's gasoline during the years of 2000 through the first quarter of 2003. The concentration of MTBE reported in Table 1 and Figure 1 is the average concentration for the quarter and primarily reflects the timing within the quarter of the transition from MTBE more than any differences in the concentration now being used. The first quarter of 2003 exhibits a significant trend by the major refiners in the state to phase out MTBE usage prior to the December 31, 2003 deadline.

Figure 2 compares the average quarterly spot price of CaRFG to the spot price for MTBE. With the transition to ethanol by the majority of refiners in California, the price of MTBE has become irrelevant to these refiners.

Table 1
California MTBE Use by Refinery Location

Refiner	California Location	MTBE Use This Quarter 1st Qtr – 2003 (Thousands of Barrels)	MTBE Use Last Quarter 4th Qtr – 2002 (Thousands of Barrels))	Change From Previous Quarter (Percent)
BP ²	Carson	65	1,936	-96.6%
ChevronTexaco ³	El Segundo	182	1,212	-85.0%
ChevronTexaco ⁴	Richmond	301	403	-25.3%
ExxonMobil ⁵	Torrance	24	711	-96.6%
Kern Oil	Bakersfield	1	92	-98.9%
ConocoPhillips ⁶	Los Angeles	35	168	-79.2%
ConocoPhillips ⁷	Rodeo	0	0	0%
Shell ⁸	Bakersfield	15	232	-93.5%
Shell ⁹	Los Angeles	3	443	-99.3%
Shell ¹⁰	Martinez	21	551	-96.2%
Tesoro ¹¹	Avon	544	528	3.0%
Valero ¹²	Wilmington	840	775	8.4%
Valero ¹³	Benicia	966	1002	-3.6%
State Refinery MTBE Totals		2,997	8,053	-62.8%
State CaRFG Production		83,139	86,385	-3.8%
Statewide Average MTBE Content		3.6%	9.3%	-5.7%

Source: California Energy Commission form number Q1001

Figure 1
California Gasoline
MTBE Concentration

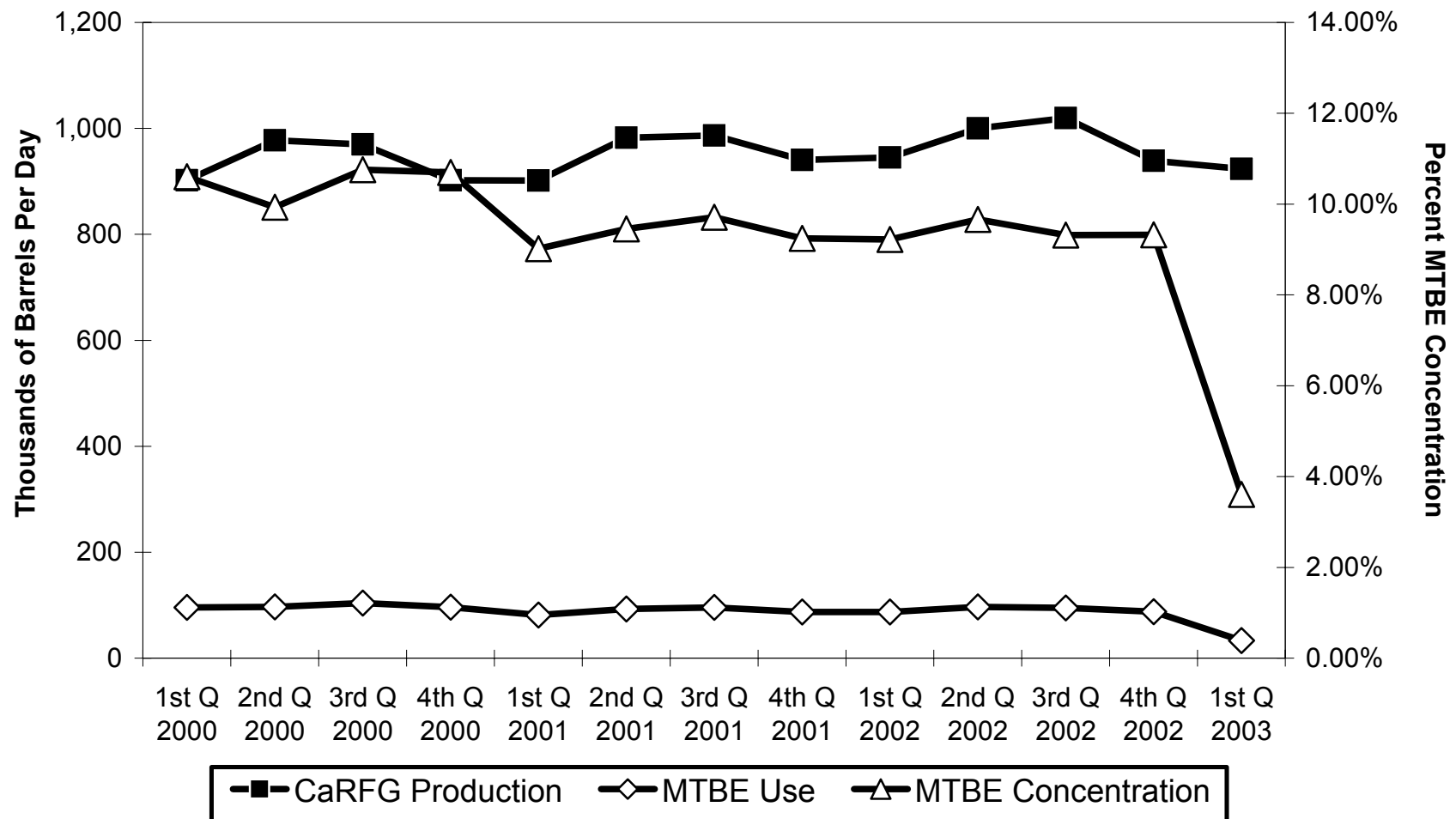
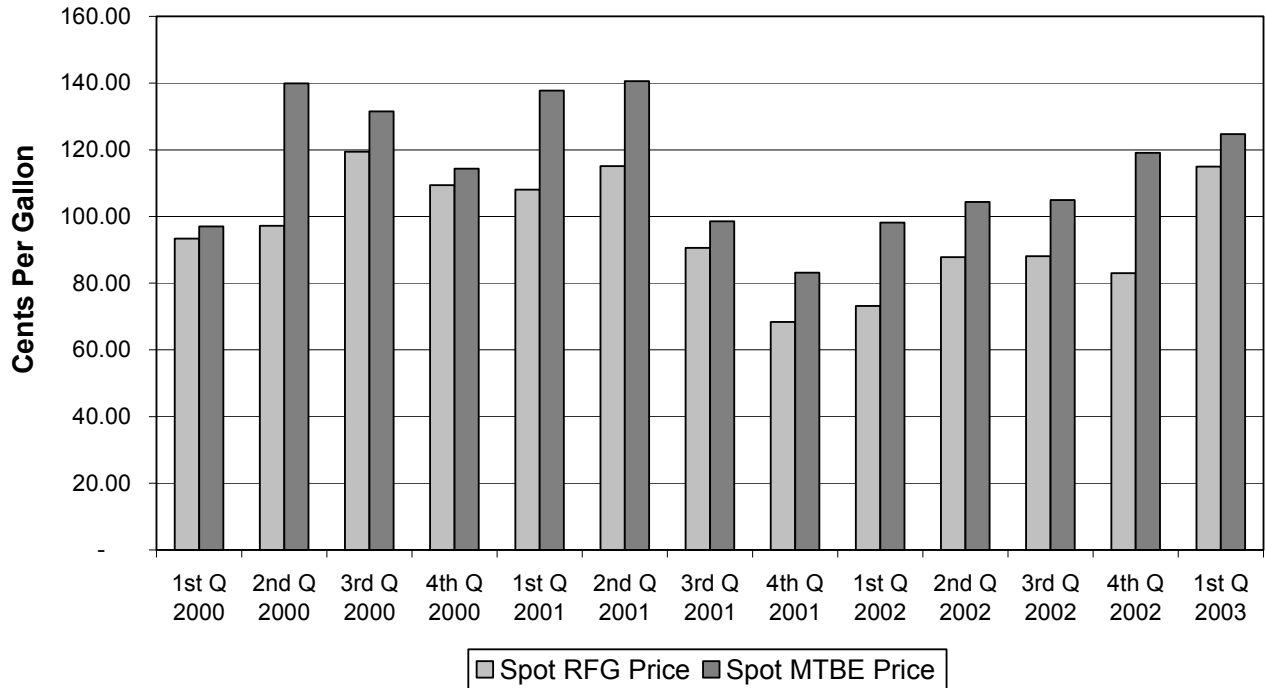


Figure 2
CaRFG vs. MTBE Spot Prices
Los Angeles



Source: California Energy Commission derived averages from Oil Price Information Service daily west coast spot market reports and Oxy-Fuel News Weekly Price Report.

End Notes

¹ A barrel is equivalent to 42 U.S. gallons.

² BP Amoco merged with ARCO to form BP 4/18/00. Prior to the merger, this refinery was known as the ARCO – Carson refinery.

³ Chevron merged with Texaco to form ChevronTexaco 9/30/01. Prior to the merger, this refinery was known as the Chevron – El Segundo refinery.

⁴ Chevron merged with Texaco to form ChevronTexaco 9/30/01. Prior to the merger, this refinery was known as the Chevron – Richmond refinery.

⁵ Exxon and Mobil merged 7/2000 to become ExxonMobil. This refinery was known as the Mobil Torrance refinery prior to the merger.

⁶ Phillips Petroleum Co. merged with Conoco Inc. 8/30/02 to form ConocoPhillips. Phillips Petroleum Co. previously acquired the Tosco Corp. 9/2001. This refinery was known as the Tosco – Los Angeles refinery prior to that purchase.

⁷ Phillips Petroleum Co. merged with Conoco Inc. 8/30/02 to form ConocoPhillips. Phillips Petroleum Co. previously acquired the Tosco Corp. 9/2001. This refinery was known as the Tosco – Rodeo refinery prior to that purchase.

⁸ Shell Oil Products acquired this refinery along with all of Equilon's western US refineries 3/2002. Equilon was a joint venture formed by Texaco and Shell 4/2000. Prior to the Equilon joint venture, the refinery was operated solely by Texaco and known as the Texaco – Bakersfield refinery.

⁹ Shell Oil Product acquired this refinery along with all of Equilon's western US refineries 3/2002. Equilon was a joint venture formed by Texaco and Shell 4/2000. Prior to the Equilon joint venture, the refinery was operated solely by Texaco and known as the Texaco – Los Angeles.

¹⁰ Shell Oil Products acquired this refinery along with all of Equilon's western US refineries 3/2002. Equilon was a joint venture formed by Texaco and Shell 4/2000. Prior to the Equilon joint venture, the refinery was operated solely by Shell and known as the Shell – Martinez refinery.

¹¹ Tesoro Petroleum completed its purchase of this refinery from Valero on 05/17/02. Valero merged with Ultramar Diamond Shamrock (UDS) 12/2001. This refinery was known as the UDS– Avon or Golden Eagle refinery prior to the merger. UDS operated the refinery independently prior to the sale to Tesoro Petroleum.

¹² Valero merged with Ultramar Diamond Shamrock (UDS) 12/2001. This refinery was known as the UDS-Wilmington refinery prior to the merger.

¹³ Valero purchased this refinery from ExxonMobil 5/2000. The refinery was known as the ExxonMobil – Benicia refinery prior to the purchase.